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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/549,995

10/27/2005

Ronald F. Wilson

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1028

30565

7590

10/23/2008

WOODARD, EMHARDT, MORIARTY, MCNETT & HENRY LLP
111 MONUMENT CIRCLE, SUITE 3700
INDIANAPOLIS, IN 46204-5137

EXAMINER

PAJOOHI, TARA S

ART UNIT

PAPER NUMBER

2886

MAIL DATE

DELIVERY MODE

10/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/549,995	Applicant(s) WILSON ET AL.	
	Examiner Tara S. Pajoohi	Art Unit 2886	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 109-145 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 109-112, 115-123, 128-133, 139, 141 and 143-145 is/are rejected.
- 7) ☒ Claim(s) 113, 114, 124-127, 134-138, 141 and 142 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/8/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Acknowledgement is made to the amendment filed on 10/6/2008.
2. Currently, claims 109-145 are pending.

Information Disclosure Statement

3. Acknowledgement is made that the information disclosure statement filed 9/8/2008 has been received and considered by the examiner. If the applicant is aware of any prior art or any other co-pending applications not already of record, he/she is reminded of his/her duty under 37 CFR 1.56 to disclose the same.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 109-112, 115-116, 118, 121, 123, 128-129, 132, 139-140 and 143-145** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moshe (U.S. Pub. No. 2006/0033919)** in view of **Tao (U.S. Patent No. 5,732,147)**.

6. Considering **claims 109, 128 and 139**, Moshe discloses (abstract, paragraphs 3, 10 and 31-187) an apparatus (10) and method for determining one more physical properties (internal properties and characteristics of rod of material) of a rolled smoking article (12) or filter rod, said apparatus comprising:

- a. an imaging device (40) defining a field of view, said imaging device being adapted to image a rolled smoking article (12) or filter rod in said field of view (i.e., electro-optical inspecting includes analyzing light reflected from the rod in the form of photographic or video camera images, paragraph 10);
- b. a positioning unit (14) which positions a smoking article or filter rod in said field of view such that the axis of the smoking article or filter rod is substantially orthogonal to the optical axis of the imaging device (see fig. 1);
- c. an illuminating unit (26) which illuminates said field of view;
- d. a processor (i.e., computer) which processes said image to determine one or more physical properties of a smoking article or filter rod in said field of view;
- e. wherein said processor repeatedly samples said image as said smoking article or filter rod is rotated by said rotating mechanism to obtain a plurality of image samples (i.e., article (12) is continuously moving and continuously inspected therefore it repeatedly samples the image of the article);
- f. wherein the processor processes each image sample to obtain a measurement of a diameter of said rolled smoking article or filter rod in each image sample (para. 125); and
- g. wherein the processor uses said measurements to obtain one or more physical properties of said rolled smoking article or filter rod selected from the mean diameter, ovality, circumference, roundness and shape of said rolled smoking article or filter rod (i.e., circumferential area, magnitude of the average diameter, etc., para. 125).

Moshe fails to specifically disclose a rotating mechanism which rotates said smoking article or filter rod about its axis in said field of view.

Tao discloses and shows in figures 1 and 6, rollers (i.e., a plurality of rods on the conveyor (20)) which are positioned side-by-side so as to define a groove wherein the groove receives the article (70) and a rotating unit (80) rotates the rollers to cause the article to rotate through a complete rotation.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide two side-by-side rollers to rotate the rolled smoking device as taught by Tao in the system of Moshe, since Tao discloses (col. 1) that it provides for a high speed method for processing the images of an article.

7. Considering **claims 110 and 111**, Moshe discloses (para. 55) the imaging device forms a digital image of the smoke article or filter rod and the processor processes the digital image electronically (i.e., digital operations, para. 55).

8. Considering **claims 112, 129 and 140**, Moshe discloses (para. 114) illuminating (70) with diffuse light onto the field of view.

9. Considering **claim 115**, Moshe discloses (para. 114) the illuminating unit (26) comprises a backlight (70) which backlights a smoking article (12) positioned in the field of view.

10. Considering **claim 116**, Moshe discloses (para. 117) the backlight comprises an infra-red light. (i.e., infra-red illumination).

11. Considering **claim 121 and 132**, Moshe discloses (para. 125) determining the diameter of the smoking article at two or more axially spaced locations of the rolled

smoking article (i.e., the average diameter therefore two or more diameters were determined in order to obtain an average diameter).

12. Considering **claims 118, 123 and 143-145**, Moshe fails to specifically disclose the rotating mechanism comprises two juxtaposed rollers, which rollers are positioned side-by side so as to define a groove therebetween which groove receives said smoking article or filter rod and a rotating unit which rotates one or both of said rollers thereby to cause the smoking article or filter rod to rotate through a complete rotation.

Tao discloses and shows in figures 1 and 6, rollers (i.e., a plurality of rods on the conveyor (20)) which are positioned side-by-side so as to define a groove wherein the groove receives the article (70) and a rotating unit (80) rotates the rollers to cause the article to rotate through a complete rotation.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide two side-by-side rollers to rotate the rolled smoking device as taught by Tao in the system of Moshe, since Tao discloses (col. 1) that it provides for a high speed method for processing the images of an article.

13. **Claims 117, 119, 120 and 130** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moshe (U.S. Pub. No. 2006/0033919)** in view of **Tao (U.S. Patent No. 5,732,147)** and further in view of **Mullins et al. (U.S. Patent No. 6,075,882)**.

14. Considering **claim 117**, Moshe fails to specifically disclose the imaging device is a digital camera.

In the same field of endeavor, a system and method for optically inspecting cigarettes, Mullins discloses (abstract) imaging with a video camera.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to image the rolled smoking device with a video camera, since a video camera will provide three-dimensional continuous analysis of the rolled smoking device as it is rotated.

15. Considering **claim 119**, Moshe discloses a processor and data analysis unit (120) but fails to specifically disclose the processor locates two opposite edges of the rolled smoking article in profile and to calculate the distance between said opposite edges.

In the same field of endeavor, a system and method for optically inspecting cigarettes, Mullins discloses (col. 2, lines 28-31) the processor locates two opposite edges of the rolled smoking article in profile and to calculate the distance between said opposite edges.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the processor to calculate the distance between two opposite edges of the rolled smoking article as disclosed by Mullins in the system of Moshe, since Moshe discloses calculating various properties of a rolled smoking article and therefore calculating the distance between two opposite edges of the cigarette is merely a matter of intended use and would thus be an obvious matter of design choice.

16. Considering **claim 130**, Moshe discloses (para. 125) determining the diameter of the smoking article at two or more axially spaced locations of the rolled smoking article (i.e., the average diameter therefore two or more diameters were determined in order to obtain an average diameter).

Moshe fails to specifically disclose locating two opposite edges of the rolled smoking article in profile and to calculate the distance between said opposite edges.

In the same field of endeavor, a system and method for optically inspecting cigarettes, Mullins discloses (col. 2, lines 28-31) the processor locates two opposite edges of the rolled smoking article in profile and to calculate the distance between said opposite edges.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the processor to calculate the distance between two opposite edges of the rolled smoking article as disclosed by Mullins in the system of Moshe, since Moshe discloses calculating various properties of a rolled smoking article and therefore calculating the distance between two opposite edges of the cigarette is merely a matter of intended use and would thus be an obvious matter of design choice.

Allowable Subject Matter

17. **Claims 113-114, 120, 122, 124-127, 133-138 and 141-142** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

18. The finality of the previous action is withdrawn. However, the current action is made final based upon applicant's amendment filed on 2/23/2006.

19. Applicant's arguments, see pages 15-17 and 19, filed 10/6/2008, with respect to claims 113-114, 120, 122, 124-127, 133-138 and 141-142 have been fully considered and are persuasive. The rejection of 7/8/2008 has been withdrawn.

20. Applicant's arguments with respect to claims 109, 128 and 139, specifically with respect to the limitation of "a rotational mechanism which rotates the smoking article or filter rod about its axis in the field of view", have been considered but are moot in view of the new ground(s) of rejection.

21. Applicant's arguments with respect to claims 109, 128 and 139, specifically with respect to the limitation of "an imaging device defining a field of view, the imaging device imaging a rolled smoking article or filter rod in the field of view" have been fully considered but they are not persuasive. Examiner would like to respectfully point out to the applicant that even though the apparatus electro-optically inspects properties of a moving rod of material, Moshe does disclose in paragraph 10, that it is well known and obvious in the art that electro-optically inspecting can include analyzing photographic or video camera images of the rod of material.

22. Applicant's arguments with respect to claims 119 and 130, specifically that "Moshe fails to disclose a processor which determines one or more physical properties of a smoking article" have been fully considered but they are not persuasive. Examiner would like to respectfully point out to the applicant that Moshe discloses (abstract) a processor (120) that determines internal properties and characteristics of the rod of material (12) and Mullins discloses (col. 2, lines 28-31) calculating the distance between opposite edges.

23. In response to applicant's argument that there is no suggestion to combine the references of Moshe and Tao, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Moshe fails to disclose a rotating mechanism comprising two juxtaposed rollers, however Tao discloses rotating rollers as the rotating mechanism and that it would provide for high-speed processing of the images of the objects. Examiner would also like to respectfully point out that even though the application discloses "rollers to rotate the unit while keeping it in a stationary position", the claims fail to disclose this limitation.

Conclusion

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara S. Pajoohi whose telephone number is (571)272-9785. The examiner can normally be reached on Monday - Thursday 9:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur R. Chowdhury can be reached on 571-272-2287. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tara S. Pajoohi

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Supervisory Patent Examiner, Art Unit 2886